CLAIMS

What is claimed is:

1. A quick release sub-base, comprising:

a flat plate member having a first side and a second side and including a bit opening extending therethrough for allowing a router bit to be projected therethrough, said first side for contacting a planar router base;

wherein said flat plate member includes at least one keyhole extending therethrough, said at least one keyhole being defined by a generally keyhole-shaped outer edge and having a larger circular first section and a smaller second section, said first section and said second section being large enough for receiving a head portion of at least one screw, said at least one screw being securely inserted onto said planar router base.

2. The quick release sub-base of claim 1, further comprising:

a rabbet flange extending inwardly from said outer edge, including a first rabbet flange surface adjacent or being part of said first side, a second rabbet flange surface adjacent said second side, and a rabbet flange wall generally perpendicular to said first side and said second side, said rabbet flange being positioned in said second section of said at least one keyhole;

wherein said second rabbet flange surface may engage said head portion of said at least one screw to attach said quick release sub-base to said planar router base.

3. The quick release sub-base of claim 2, wherein a height of said head portion of said at least one screw is same as, or slightly shorter than, a distance between said second rabbet flange surface and said second side of said flat

plate member.

4. The quick release sub-base of claim 2, wherein said second rabbet flange surface is generally parallel to said first side and said second side of said flat plate member.

5. The quick release sub-base of claim 2, wherein said second rabbet flange surface is a little tiled so that a distance between said second rabbet flange surface and said second side decreases away from said larger circular first section.

6. The quick release sub-base of claim 1, wherein said flat plate member includes at least three keyholes extending therethrough.

7. The quick release sub-base of claim 6, wherein said at least three keyholes have same radius from a center of said flat plat member.

8. The quick release sub-base of claim 7, wherein said at least three keyholes are evenly distributed.

9. The quick release sub-base of claim 1, wherein said at least one keyhole is curved.

10. The quick release sub-base of claim 1, wherein said bit opening is threaded.

11. The quick release sub-base of claim 1, wherein said flat plate member includes at least one of pin hole or pin recess for receiving an extensible pin located on said planar router base.

12. The quick release sub-base of claim 11, wherein said extensible pin is in one of a raised position and a depressed position.

13. A router, comprising:

a planar router base with at least one screw being securely inserted therein; and

a quick release sub-base attached to said planar router base, comprising a flat plate member having a first side for contacting said planar router base, a second side, and a bit opening extending therethrough for allowing a router bit to be projected therethrough;

wherein said flat plate member includes at least one keyhole extending therethrough, said at least one keyhole being defined by a generally keyhole-shaped outer edge and having a larger circular first section and a smaller second section, said first section and said second section being large enough for receiving a head portion of said at least one screw.

14. The router of claim 13, wherein said quick release sub-base further comprising:

a rabbet flange extending inwardly from said outer edge, including a first rabbet flange surface adjacent or being part of said first side, a second rabbet flange surface adjacent said second side, and a rabbet flange wall generally perpendicular to said first side and said second side, said rabbet flange being positioned in said second section of said at least one keyhole;

wherein said second rabbet flange surface engages said head portion of said at least one screw to lock said quick release sub-base to said planar router base.

15. The router of claim 14, wherein a height of said head portion of said at least one screw is same as, or slightly shorter than, a distance between said second rabbet flange surface and said second side of said flat plate member.

16. The router of claim 14, wherein said second rabbet flange surface is generally parallel to said first side and said second side of said flat plate member.

17. The router of claim 14, wherein said second rabbet flange surface is a little tiled so that a distance between said second rabbet flange surface and said second side decreases away from said larger circular first section.

18. The router of claim 13, wherein said flat plate member includes at least three keyholes extending therethrough.

19. The router of claim 18, wherein said at least three keyholes have same radius from a center of said flat plat member.

20. The router of claim 19, wherein said at least three keyholes are evenly distributed.

21. The router of claim 13, wherein said at least one keyhole is curved.

22. The router of claim 13, wherein said bit opening is threaded.

23. The router of claim 13, wherein said flat plate member includes at least one of pin hole or pin recess for receiving an extensible pin located on said planar router base.

24. The router of claim 23, wherein said extensible pin is in one of a raised position and a depressed position.

25. The router of claim 13, further comprises a securing device for prevent said

sub-base from moving relative to said planar router base.

26. A router table apparatus, comprising:

a router table including a work surface supported on legs; and

a quick-release sub-base inserted into said working surface so as to be flush therewith, said quick-release sub-base comprising a flat plate member having a first side for contacting a planar router base, a second side, and a bit opening extending therethrough for allowing a router bit to be projected therethrough,

wherein said flat plate member including at least one keyhole extending therethrough, said at least one keyhole being defined by a generally keyhole-shaped outer edge and having a larger circular first section and a smaller second section, said first section and said second section being large enough for receiving a head portion of at least one screw, said at least one screw being securely inserted onto said planar router base.

27. The router table apparatus of claim 26, further comprising:

said planar router base; and

a rabbet flange extending inwardly from said outer edge, including a first rabbet flange surface adjacent or being part of said first side, a second rabbet flange surface adjacent said second side, and a rabbet flange wall generally perpendicular to said first side and said second side, said rabbet flange being positioned in said second section of said at least one keyhole;

wherein said second rabbet flange surface engages said head portion of said at least one screw to lock said quick release sub-base to said planar router base.

28. The router table apparatus of claim 27, wherein a height of said head portion of said at least one screw is same as, or slightly shorter than, a distance between said second rabbet flange surface and said second side of said flat

plate member.

29. The router table apparatus of claim 27, wherein said second rabbet flange surface is generally parallel to said first side and said second side of said flat plate member.

30. The router table apparatus of claim 27, wherein said second rabbet flange surface is a little tiled so that a distance between said second rabbet flange surface and said second side decreases away from said larger circular first section.

31. The router table apparatus of claim 26, wherein said flat plate member includes at least three keyholes extending therethrough.

32. The router table apparatus of claim 31, wherein said at least three keyholes have same radius from a center of said flat plat member.

33. The router table apparatus of claim 32, wherein said at least three keyholes are evenly distributed.

34. The router table apparatus of claim 26, wherein said at least one keyhole is curved.

35. The router table apparatus of claim 26, wherein said bit opening is threaded.

36. The router table apparatus of claim 26, wherein said flat plate member includes at least one of pin hole or pin recess for receiving an extensible pin located on said planar router base.

37. The router table apparatus of 36, wherein said extensible pin is in one of a raised position and a depressed position.

38. The router table apparatus of claim 26, further comprises a securing device for prevent said sub-base from moving relative to said planar router base.

39. A method for mounting a quick release sub-base to a planar router base, comprising:

aligning larger circular sections of keyholes located in a sub-base with corresponding screws inserted into screw holes of a router base;

putting said sub-base and said router base together so that a head portion of each of said screws are received inside said larger sections of said keyholes; and

rotating said router base or said sub-base relative to each other so that a rabbet flange surface located inside said keyholes engages said head portion to lock said sub-base to said router base.

40. The method of claim 39, further comprising:

depressing an extensible pin located onto said router base so that said extensible pin extends into a pin hole located in said sub-base and said sub-base and said router base cannot be moved relative to each other.

41. A method for removing an attached quick release sub-base from a router base, comprising:

raising an extensible pin, extending from a router base into a pin hole located into a sub-base, from said pinhole so that said sub-base and said router base can be moved relative to each other;

rotating said router base or said sub-base relative to each other so that a head portion of at least one screw inserted into said router base is positioned inside a larger circular section of at least one keyhole located inside said sub-base; and

separating said sub-base from said router base.